Claims

1. A photosensor having a filter function, comprising:

a filter device (1) having a colored glass filter (3) and configured for permitting transmission of light of a predetermined wavelength range including a detection target wavelength range; and

a light receiving device (2) for receiving the light transmitted through the filter device (1);

wherein said filter device (1) includes a first interference filter structure (4) comprised of a plurality of light transmitting layers (4a), (4b) stacked on each other, the first interference filter structure (4) being deposited on a face of the colored glass filter (3);

said light receiving device (2) includes a semiconductor photodetector structure having one or more semiconductor layers, a light receiving area being formed in the one or more semiconductor layers within the semiconductor photodetector structure; and

said one or more semiconductor layers forming the semiconductor photodetector structure contain $In_xAl_yGa_{1-x-y}N$ ($0 \leqq x \leqq 0.21$, $0 \leqq y \leqq 1$).

2. The photosensor having a filter function according to claim 1, wherein said filter device (1) further includes a second interference filter structure (5) comprised of a plurality of light transmitting layers (5a), (5b) stacked on each other, the second interference filter structure (5) being deposited on the other face of the colored glass filter opposite to the one face on which said first interference structure (4) is deposited.

3. The photosensor having a filter function according to claim 1, wherein said interference filter structure contains at least one of SiO_2 and HfO_2, with an exposed surface of the interference filter structure being formed of the oxide.

4. The photosensor having a filter function according to claim 1, wherein a longer wavelength end wavelength of said detection target wavelength range corresponding to an absorption end wavelength of said light receiving area is set near a longer wavelength end wavelength of a light transmission wavelength range of said filter device (1); and

a first sensitivity for a predetermined first wavelength included within said detection target wavelength range has a value 10,000 times or more greater than a value of a second sensitivity for a second wavelength which is outside said detection target wavelength range and which is 50 nm longer than said first wavelength.

5. The photosensor having a filter function accoring to claim 4, wherein said longer wavelength end wavelength of said detection target wavelength range is 400 nm $\pm$20 nm.

6. The photosensor having a filter function according to claim 4, wherein said longer wavelength end wavelength of said detection target wavelength range is 365 nm $\pm$20 nm.

7. The photosensor having a filter function according to claim 4, wherein said longer wavelength end wavelength of said detection target wavelength range is 315 nm $\pm$20 nm.

8. The photosensor having a filter function according to claim 4, wherein said longer wavelength end wavelength of said detection target wavelength range is 280 nm $\pm$20 nm.

9. A flame sensor comprising the photosensor having a filter function according to any one of claims 1-8, the photosensor being sealed

with nitrogen gas or inert gas.